

In The Claims:

1. (Original) A display device having a housing with a first illustrated portion and a second illuminated portion, said display device comprising:

a) said first illuminated portion comprising:

a generally rectangular first housing portion;

said first housing portion having a lower wall member, an upper wall member, two side wall members, a rear wall member, and a front section;

an illumination means positioned within said first housing portion for projecting light through said front section;

display means positioned in said front section;

said display means having at least one partially transparent or translucent portion in order to allow light from said illumination means to project through said front section;

transparent door member covering said display means;

air vent means in said rear wall member to allow circulation of air in said housing and venting of high temperature air;

at least one hinge mechanism hingedly connecting said door member to said upper wall member; and

b) said second illuminated portion comprising:

a second housing portion positioned adjacent to and contiguous with said upper wall member of said first housing portion;

said second housing portion comprising a front member, at least two sidewall members and a rear member;

an illumination means positioned within said second housing portion for projecting light through said front member and backlighting display members positioned on said second housing portion;

first display securing means on said upper wall member of said first housing portion and on said two sidewall members for securing display members in said second housing portion;

said first display securing means having biased clamping members hingedly secured to said upper wall member of said first housing portion and to said sidewall members for securing said display members in place.

2. Cancelled.
3. Cancelled.
4. Cancelled.
5. Cancelled.
6. Cancelled.
7. Cancelled.
8. Cancelled.
9. Cancelled.
10. Cancelled.
11. Cancelled.

12. (New) A display module for securing a plurality of display members having transparent or translucent portions in a display device comprising a housing and a source of light positioned in said housing for projecting light through said transparent or translucent portions of said display members, said display module comprising:

a generally rectangular frame comprising first and second opposed, spaced-apart, elongate vertically disposed frame members and third and fourth opposed, spaced-apart, elongate horizontally disposed frame members, said first, second, third, and fourth frame members being connected together adjacent their ends to form the frame, wherein a plane passes through said first, second, third, and fourth frame members;

a plurality of horizontally disposed elongate divider members individually removably held in place on said first and second frame members substantially in said plane in vertically spaced-apart relation substantially only by mating male and female connection members located on the ends of said divider members and on said first and second frame members;

at least one channel in said divider members for securing said display members substantially in said plane between opposed sets of said channels in adjacent divider members removably held in place on said frame; and

wherein said divider members and display members may be removed and replaced in the module without disassembly of said frame and wherein said display members may be provided in various vertical dimensions in order to be positioned between selected opposed sets of channels in said dividers removably held in place in said plane on said frame.

13. (New) The display module of Claim 12, further comprising second channels in said third and fourth opposed frame members substantially in said plane for securing a display member between a channel in at least one of said third or fourth frame members and a channel in one of said divider members removably held in place on said frame.

14. (New) The display module of Claim 12, wherein said mating male and female connection members comprise male connection members supported on said first and second frame members and female connection members located on said divider members only adjacent their ends.

15. (New) The display module of Claim 12, wherein each of said divider members has two channels for securing said display members.

16. (New) The display module as set forth in claim 12 wherein all of said divider members are removable.

17. (New) A method of assembling an illuminated display device for securing and displaying a plurality of display members having translucent portions comprising the steps of:

providing a display device housing having one or more openings and adapted to removably secure one or more assembled display modules containing said display members in said openings;

positioning at least one source of light within said housing so as to enable light to be projected through said one or more openings in said housing and through translucent portions of said display members contained in said one or more modules located in said one or more openings; and

providing at least one assembled display module, said display module being assembled by the steps of:

assembling first and second opposed, spaced-apart vertically disposed frame members and third and fourth opposed, spaced-apart horizontally disposed frame members so as to form a generally rectangular frame wherein a plane passes through said first, second, third, and fourth frame members;

removably securing a plurality of horizontally disposed elongate divider members on said frame in vertically spaced-apart relation substantially only by snap-fitting connectors on the ends of the dividers with corresponding, mating connectors located along the first and second frame members such that said divider members are removably secured to the frame substantially only on their ends substantially in said plane and may be removed from or secured to the frame without disassembly of the frame and wherein said divider members include at least one channel lying substantially in said plane when said dividers are removably held in place on the first and second frame members for securing display members substantially in said plane between opposed sets of channels in the dividers;

removably securing the display module within an opening in the housing;
and

wherein said divider members and display members may be removed and replaced in said frame without disassembly of the frame.

18. (New) A method of operating a modular display device comprising the steps of:

providing a display device housing having one or more openings therein for removably securing one or more display modules in said openings;

providing at least one assembled display module by the steps of:

assembling first and second opposed, spaced-apart vertically disposed frame members together with third and fourth opposed, spaced-apart horizontally disposed frame members so as to form a generally rectangular frame defining a plane, the third and fourth opposed frame members each including channels lying substantially in said frame for securing portions of display members disposed substantially in said plane;

securing a plurality of retention members on the first and second frame members;

providing a plurality of elongate divider members, each having elongate oppositely facing first elongate channels therein running generally along the length thereof, said divider members being removably attachable on their ends to the retention members so as to cause the first channels in the dividers to lie substantially in said plane and to face in generally opposite directions generally parallel to said plane;

removably attaching the divider members on their ends to the retention members as aforesaid so as to cause the first channels therein to be substantially in the plane of the frame and to face in generally opposite directions therealong;

removably securing the assembled display module within an opening in the display device housing;

wherein said divider members and display members may be removed and replaced in said frame without disassembly of any frame members and said one or more display modules may be placed in and removed from said one or more openings in said display device housing without disassembly of the housing.

19. (New) The method of Claim 18, wherein the step of providing at least one assembled display module further comprises:

providing the plurality of elongate display members within the module by slidably inserting said display members into channels in adjacent dividers so as to be supported substantially in the plane and on the frame between adjacent dividers wherein the first or second frame member is configured to enable the display members to be inserted and withdrawn lengthwise from the side of the frame by sliding the display members into and out of channels in adjacent dividers; and

wherein said third and fourth opposed frame members have second elongate channels for removably securing display members in the plane and on the frame between opposed sets of channels substantially in the plane by means of sliding movement of display members laterally in first and second channels spanning vertically between a third or fourth frame member and an adjacent removably supported divider.

20. (New) The method of Claim 18, wherein said divider members are removably attached to said retention members by mating male and female connection members.

21. (New) The method of Claim 19, wherein said mating male and female connection members comprise male connection members on said retention members and female connection members on said divider members.

22. The method of claim 18 wherein all of said divider members are removably secured on said frame.

23. The method of claim 18 wherein each of said divider members has two opposed channels.

24. (New) An illuminated display device for securing and displaying a plurality of display members having translucent portions thereon, said device comprising:

a housing;

at least one lighting source positioned in said housing for projecting light through an opening in said housing and through the translucent portions of said display members; and

at least one display module removably disposed within said opening in said housing, said display module comprising:

a generally rectangular frame assembled from a plurality of frame members connected together at their ends, said frame members comprising first and second opposed, spaced-apart, vertically disposed, elongated upright frame members and third and fourth opposed, spaced-apart, horizontally disposed, elongate cross frame members, said upright and cross frame members lying in a plane when assembled together to form said frame;

a plurality of retention members secured on said first and second opposed frame members;

a plurality of horizontally disposed, vertically spaced-apart elongate divider members for supporting one or more display members between adjacent pairs of divider members, each of said divider members being individually removably secured to the frame only on their respective ends by opposed retention members by movement of said ends of said divider members toward and away from said retention members in a direction generally perpendicular to the plane defined by the frame, wherein said divider members are only secured in the frame by said retention members and may be secured to or removed from the frame while the frame is disposed within the opening in the housing;

said divider members being held in place by said retention members by mating male and female connection members; and

first channel means in said divider members for securing said display members between opposed sets of said channel means,

wherein said divider members and display members can be removed and replaced in said frame without disassembly of any frame members, and wherein said display members may be provided in various vertical dimensions in order to be positioned on said frame between any opposed set of first channel means.

25. (New) The display device of Claim 24, further comprising second channel means in said third and fourth opposed frame members for securing of said display members between any opposed sets of said first and second channel means.

26. (New) The display device of Claim 24, wherein said mating male and female connection members comprise male connection members on said retention members and female connection members on said divider members.

27. (New) The display device of Claim 24, wherein all of said divider members included in said frame are individually removable.

28. (New) The display device of Claim 24 wherein said first channel means comprises a pair of opposed channel members in each of said divider members.

29. (New) A display device for securing and displaying a plurality of display members thereon, said device comprising:

a housing having an opening therein;

a display module removably disposed within said opening in said housing, said display module comprising:

a generally rectangular frame assembled from a plurality of frame members connected together at their ends, said frame members comprising first and second opposed, spaced-apart, vertically disposed, elongated upright frame members and

third and fourth opposed, spaced-apart, horizontally disposed, elongate cross frame members, said upright and cross frame members lying substantially in a plane when assembled together to form said frame;

a plurality of retention members secured on said first and second opposed frame members;

a plurality of horizontally disposed, vertically spaced-apart elongate divider members, each divider member having elongate channels running generally along the length thereof and facing in substantially opposite directions, said divider members being individually removably secured to the frame, only on their respective ends, by opposed retention members disposed along the upright frame members by movement of said ends of said divider members toward and away from said retention members in a direction generally perpendicular to the plane defined by the frame, wherein said divider members, when removably secured to the frame by the retention members in vertically spaced apart relation, dispose their respective channels substantially in the plane of the frame facing in directions substantially parallel to the plane;

a plurality of elongate display members slidably receivable in and supported by said channels in said dividers removably secured to the frame by the retention members so that said display members, when received in said channels in adjacent dividers, lie substantially in the plane of the frame;

at least one of said upright frame member being configured to enable one or more of said display members to be slidably inserted into and slidably withdrawn from opposed channels of adjacent dividers from the side of the frame while the dividers are removably secured to the frame by the retention members and without disassembling the frame;

wherein said divider members and display members may be removed from and placed in said frame without disassembly of any frame members and said display module may be removed from and placed in said opening in said housing

without disassembling the housing, and wherein said display members may be provided in various vertical dimensions in order to be slidably positioned on said frame between any opposed set of channels in adjacent removable dividers.

30. (New) The display device of Claim 29, further comprising second channel means in said third and fourth opposed frame members for securing of said display members between any opposed sets of said first and second channel means.

31. (New) The method of Claim 29, wherein said divider members are removably attached to said retention members by mating male and female connection members.

32. (New) The method of Claim 31, wherein said mating male and female connection members comprise male connection members on said retention members and female connection members on said divider members.

33. (New) A modular display device which comprises:

a display device housing supported on a base on the ground, a building, or other support structure, the housing including a plurality of openings therein and a source of internal illumination configured to supply light to said openings;

a plurality of display modules dimensioned and configured to be removably positionable in selected openings of said housing, each of said display modules comprising an assembled frame with opposed, spaced-apart horizontal frame members and opposed, spaced-apart vertical frame members, the vertical and horizontal frame members lying substantially in a plane, retention members supported on the vertical frame members for removably supporting, in vertically spaced-apart relation, only the ends of selected ones of a plurality of horizontally disposed elongate divider members having at least one elongate channel therein configured to slidably receive and support elongate display members between channels in adjacent removable dividers, the channels being disposed substantially in the plane in which the vertical and horizontal frame members lie and at least

one of the vertical frame members being configured to enable display members to be slid completely into and out of the aforementioned positions supported in and between channels in adjacent removable dividers from the side of the frame without disassembling the frame, the display members having transparent or translucent portions thereon through which light supplied to said opening may pass;

wherein dividers removably supported on the frame may be removed from their associated retention members and repositioned on other retention members to vary the vertical spacing between adjacent dividers to thereby accommodate slidably positioning display members of varying vertical dimensions between adjacent dividers from the side of the frame as aforesaid, all without disassembling the frame; and

wherein display modules may be removed from and repositioned into openings in the housing without disassembly of the housing.

34. (New) The display device of Claim 33, further comprising second channel means in said third and fourth opposed frame members for securing of said display members between any opposed sets of said first and second channel means.

35. (New) The method of Claim 33, wherein said divider members are removably attached to said retention members by mating male and female connection members.

36. (New) The method of Claim 35, wherein said mating male and female connection members comprise male connection members on said retention members and female connection members on said divider members.

37. (New) A display module for an illuminated display device, said display device comprising a housing and light means positioned in said housing and projecting light through a portion of said housing, said display module comprising:

a generally rectangular frame made from a plurality of frame members defining a plane, said frame having first and second opposed vertically disposed frame members and third and fourth opposed horizontally disposed frame members;

a plurality of retention members, said retention members being positioned along said first and second opposed frame members and projecting outwardly substantially perpendicular to the plane of said frame;

a plurality of horizontally disposed divider members positioned on said frame, at least one of said divider members being individually removably held in place by opposed retention members;

said divider members being held in place by said retention members by mating male and female connection members;

at least one channel means in said divider members for securing portions of display members; and

a plurality of display members positioned between opposed sets of channel means, said display members having translucent portions thereon;

wherein said divider members and display members can be removed and replaced in said frame without disassembly of any frame members; and

wherein said display members allow light from said light means to be projected therethrough and can be provided in various vertical dimensions in order to be positioned on said frame between any opposed sets of channel means.

38. (New) The display module of Claim 37 wherein all of said divider members are removable.

39. (New) The display module of Claim 37 wherein two channel means are provided in at least one of said divider members.

40. (New) The display module of Claim 37 wherein all of said divider members are removable, and two channel means are provided in each of said divider members.

41. (New) The display module of Claim 37 wherein said retention members comprise male retention members, and said female retention members are positioned adjacent the ends of said divider members.

42 (New) A display module adapted to be positioned in an illuminated display device having a housing and a source of illumination, said display module comprising:

a generally rectangular frame with first and second opposed generally vertically oriented frame members and third and fourth opposed generally horizontally oriented frame members;

a plurality of retention members positioned along each of said first and second frame members at preselected spaced locations the entire distance between said third and fourth frame members;

a plurality of divider members positioned on said frame; said divider members being releasably held in position on said frame by said retention members and being removably positioned the entire distance between said third and fourth frame members being individually removable from said frame member without disassembly of said frame for adjusting the display spaces between adjacent divider members and said third and fourth frame members for placing differently sized display members therebetween;

first channel members in each of said divider members for releasably holding portions of display members and second channel members in said third and fourth members for releasably holding portions of display members; and

a plurality of display members adapted to be positioned between said first channel members in adjacent divider members, between said second channel members in said third and fourth frame members, or between one of said second channel members in one of said third and fourth frame members and one of said first channel members in one of said divider members;

wherein said frame allows positioning and removing of display members throughout the entire display area of said frame; and

wherein when said display members are positioned between opposed sets of channel members, light from the source of illumination inside the housing can be projected therethrough.